Refrigerator

ATAG KD8088AD

KD8102AD

KD8102BD

KD8140BD

AEP HOME PRODUCTS

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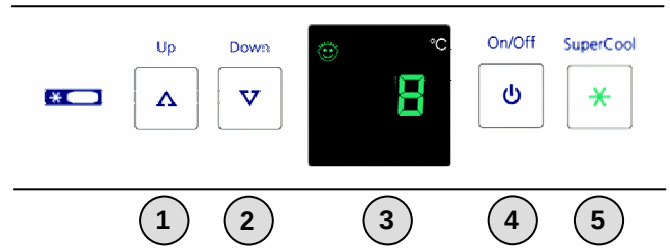
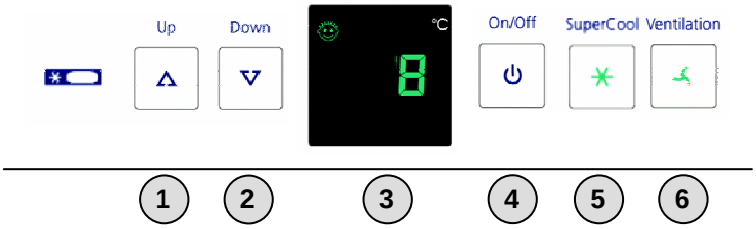
1.0 Operating and control elements



IKP 2850 with fan



Refrigerator compartment

1 : Setting button temperature **higher**
2 : Setting button temperature **lower**
3 : Temperature display, refrigerator compartment
4 : On/Off button
5 : SuperCool function, button lit = function switched on.
6 : Ventilation function, button lit = function switched on.

2.0 Functions at a glance

	IKP 2850	IKP ..50	IKP ..54
Control:	Electronic control system		
Temperature display:	Actual value display		
Temperature alarm:	No		
Door alarm:	No		
Fan:	Yes	No	No
Defrosting:	Automatic	Automatic	Refrigerator compartment: automatic Freezer compartment: manual
Interior light:	Yes	Yes	Refrigerator compartment: yes Freezer compartment: no
SuperCool:	Yes		
Service menu:	Start by button combination		
Refrigerating system:	1 standard compressor		

3.0 Description of the appliance

The **IKP ..50** are refrigerators for integrated use with a **freely suspended** rear wall evaporator.
The **IKP ..54** are refrigerators for integrated use with a **foamed-in** rear wall evaporator and a 4-star freezer compartment. The appliances are prepared for installation with a door-on-door system and are equipped with a soft stop function. Due to its size, the IKP 2850 as the only IKP appliance has a fan for uniform temperature distribution.
The temperature is controlled by an air sensor and an evaporator sensor.

3.1 **Schematic diagram IKP ..50,** without 4-star freezer compartment

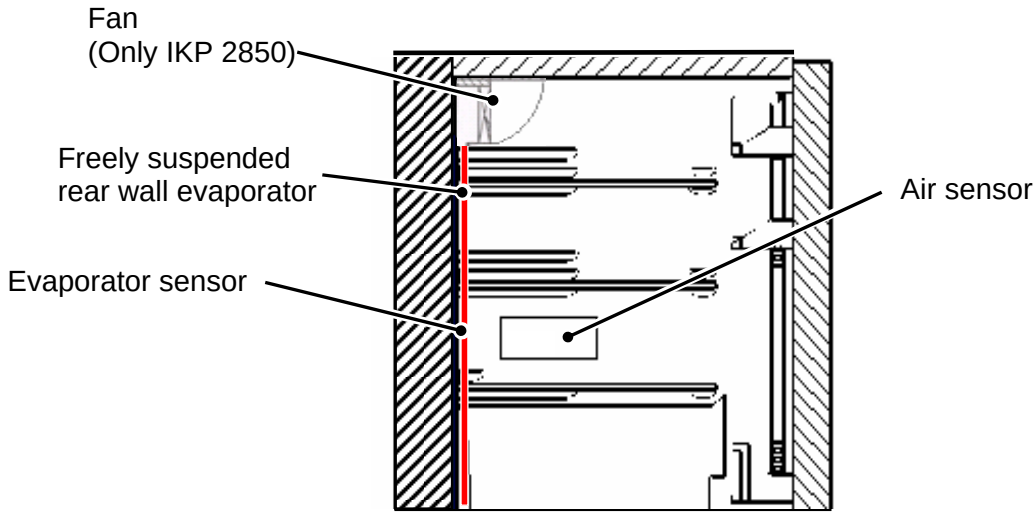


Fig. 3.1

3.2 **Schematic diagram IKP ..54,** with 4-star freezer compartment

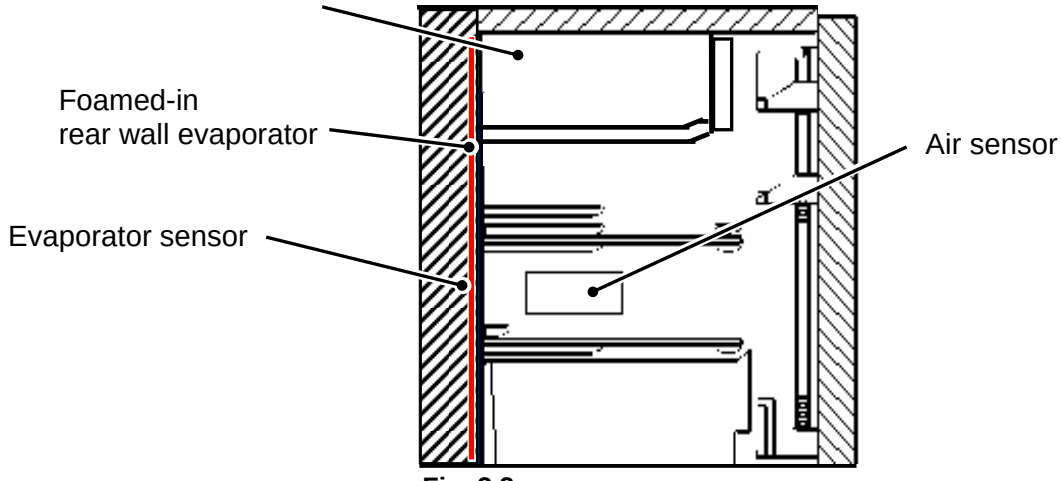


Fig. 3.2

4.0 Control and functional components

4.1 Refrigerator compartment

Electr. control system:	Series 6 electronic control system: integral PCB.	
Setting range:	+2°C to +9°C	
Display range:	2°C to 50°C	
Door alarm:	No	
Interior light:	Position:	Inside right.
	Function:	- Is switched on as soon as refrigerator compartment door is opened. - Is switched off after door has been open for 15 minutes.
	Attention:	**230V applied to the LEDs.**
Reed PCB:	Position:	In front panel.
	Function:	Switches the interior light on when the door is opened. Only IKP 2850: Turns off the fan (if activated) when the door is opened.
Air sensor:	Position:	In light housing.
	Function:	- Switches the compressor off.
Evaporator sensor:	Position:	**In IKP ..50:** In the sensor pocket on the rear of the evaporator. **In IKP ..54:** In sensor holder on compartment liner rear wall.
	Function:	Switches compressor on.
SuperCool:	With SuperCool the appliance switches to the coldest control setting for 6 hours. **In IKP ..54:** The freezer compartment becomes correspondingly colder.	
Defrosting:	Automatic during standstill phase of the compressor.	
Fan: (Only IKP 2850)	Position:	At the centre back of the ceiling of the compartment liner.
	Function:	**ON:** - Fan switch ON **and** - Compressor ON **and** - Refrigerator compartment door closed **OFF:** - Fan switch OFF **or** - Compressor OFF **or** - Refrigerator compartment door open
	During start-up the fan is activated only from an evaporator sensor temperature of +8°C and colder.	
Compressor:	Function:	**ON:** - Refrigerator compartment evaporator sensor switch-on value Note: On-delay time (8 mins.) must have elapsed. **OFF:** - Refrigerator compartment air sensor switch-off value

4.2 Freezer compartment

Electronic control system:	See **4.1 Refrigerator compartment**.
Setting range:	Dependent on refrigerator compartment setting
Display range:	No display
Compressor:	**See 4.1 Refrigerator compartment** -compressor-

5.0 Refrigeration circuit

Evaporator:	IKP ..50:	Freely suspended evaporator.
	IKP ..54:	Foamed-in rear wall evaporator + foamed-in wound around freezer compartment evaporator.
Injection point/ flow sequence:	IKP ..50:	Introduction of refrigerant in refrigerator compartment evaporator top left.
	IKP ..54:	Introduction of refrigerant in freezer compartment evaporator 1st winding at the front, then transition to the refrigerator compartment evaporator. Entry into refrigerator compartment evaporator: top right. Exit from refrigerator compartment evaporator into the suction line: top left.
Compressor:	1 standard compressor. On-delay time of 8 mins.	

6.0 Special features

6.1 Soft stop

Integrated on the door, the SoftSystem cushions movement when the door is closed.
The door is closed automatically from an opening angle of approx. 30°.

Fig. 6.1/ 1 Soft stop mechanism

Cover: Disengage and detach cover.

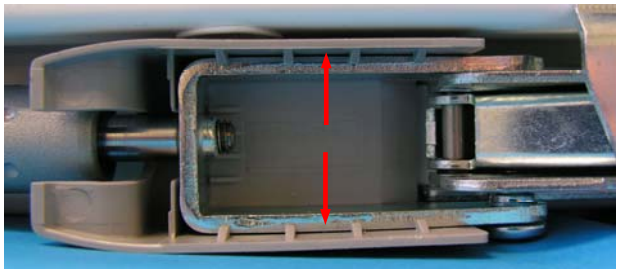


Fig. 6.1/ 2 Cover, rear

Fig. 6.1/ 3 Cover, front

Soft stop mechanism: Unlock retaining spring and detach soft stop mechanism from the spherical head.

Fig. 6.1/ 4 Detaching soft stop mechanism from spherical head

Fig. 6.1/ 5 Soft stop mechanism detached

Fixing bracket of soft stop mechanism: Undo screw and detach soft stop mechanism.

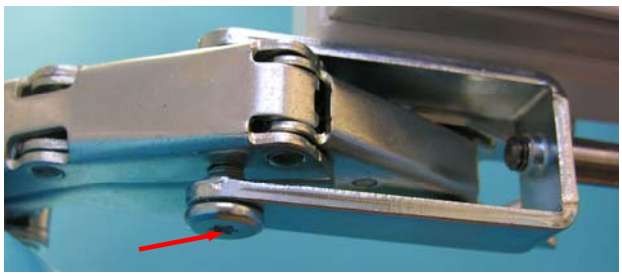


Fig. 6.1/ 6 Screw of hinge fixture

Fig. 6.1/ 7 Fixing bracket

7.0 Assembly instructions

7.1 Evaporator sensor

7.1.1 Appliances without 4-star freezer compartment

Evaporator sensor:

- Remove glass shelves and glass shelf supports.
- Undo screws of the evaporator suspension (see **Fig.7.1.1/ 1**)
- Swing evaporator to the left.
- Pull off the strip about 20 cm, starting from the bottom (see **Fig. 7.1.1/ 2**).
- Pull evaporator sensor out of sensor pocket.

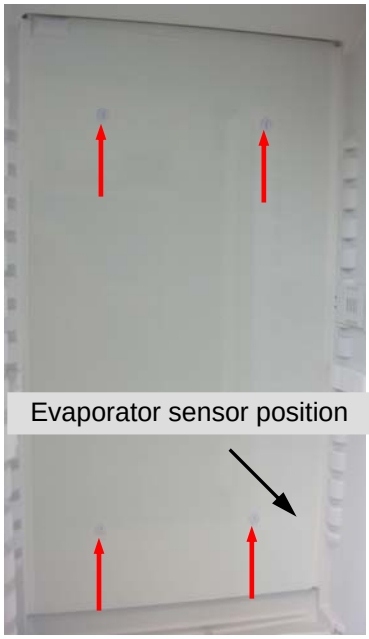


Fig. 7.1.1/ 1

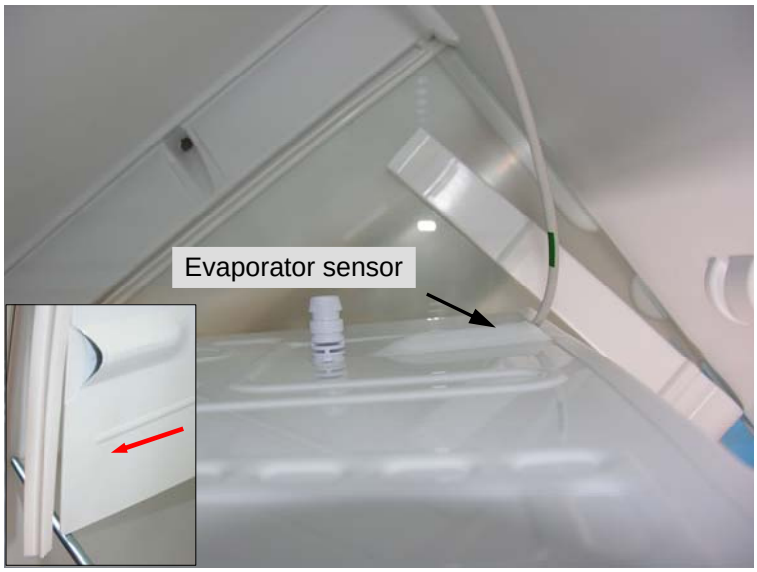


Fig. 7.1.1/ 2 Evaporator sensor

7.1.2 Appliances with 4-star freezer compartment

Evaporator sensor:

- Unclip evaporator sensor cover at the marked point and remove it.
- Undo screw of the evaporator sensor fastening (see **Fig. 7.1.2/ 2**)
- Unclip evaporator sensor from the fastening plate.

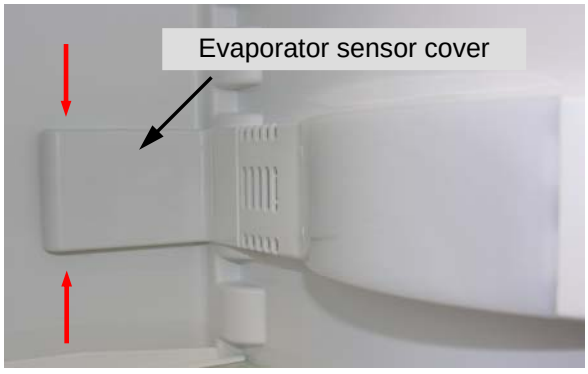


Fig. 7.1.2/ 1 Cover

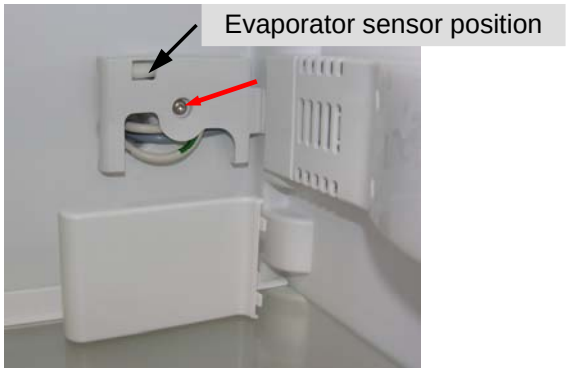


Fig. 7.1.2/ 2 Position

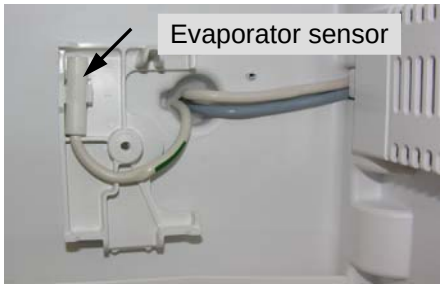


Fig. 7.1.2/ 3 Evaporator sensor

7.2 Air sensor

- In appliances with 4-star compartment, first remove the evaporator sensor cover.
- Unlock the locating lugs of the light cover in arrow direction, using a short screwdriver (see **Fig. 7.2/ 1**).
- Unlock light housing at rear locating lug in arrow direction (see **Fig. 7.2/ 2**)
- Unlock light housing at front locating lug in arrow direction (see **Fig. 7.2/ 3**)
- Unclip air sensor from holder on back of light housing.

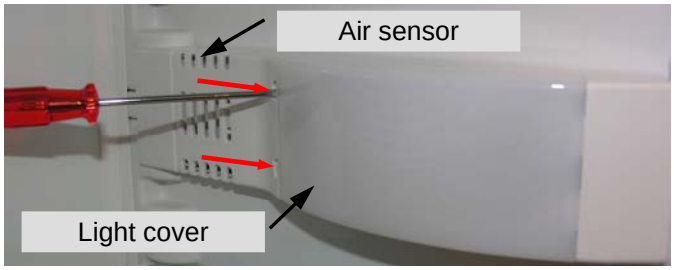


Fig. 7.2/ 1 Detaching light cover

Fig. 7.2/ 2 Light housing, rear locating lug

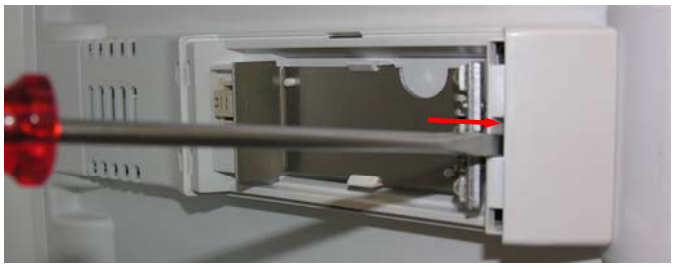


Fig. 7.2/ 3 Light housing, front locating lug

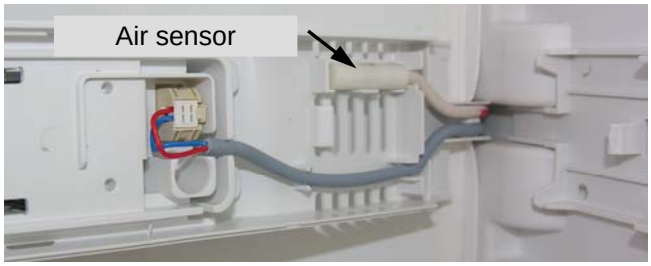


Fig. 7.2/ 4 Light housing back

7.3 LED interior light

- **Disconnect appliance from mains supply as 230V are applied to LEDs!**
- In appliances with 4-star compartment, first remove the evaporator sensor cover.
- Unlock the locating lugs of the light cover in arrow direction, using a short screwdriver (see **Fig. 7.2/ 1**).
- Unlock LED lighting unit at marked locating lugs (see **Fig. 7.3/ 1**).
- Unlock light housing at rear locating lug in arrow direction (see **Fig. 7.2/ 2**)
- Unlock light housing at front locating lug in arrow direction (see **Fig. 7.2/ 3**)
- Unlock connector in arrow direction (see **Fig. 7.3/ 2**)
- Unlock connector coupling in arrow direction (see **Fig. 7.3/ 1**).

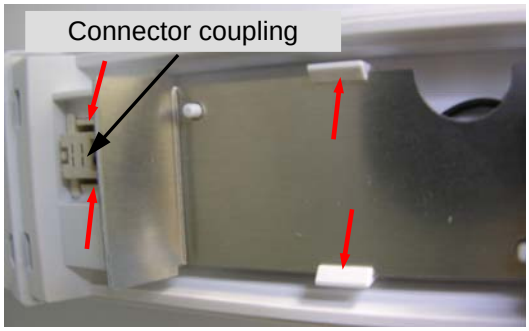


Fig. 7.3/ 1

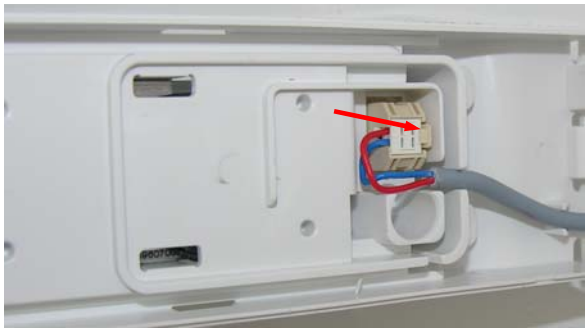


Fig. 7.3/ 2

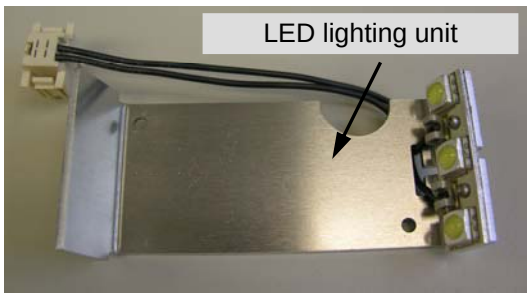


Fig. 7.3/ 3 LED lighting unit

7.4 -Only IKP 2850- fan

- Undo fastening screws of the fan (see **Fig. 7.4/ 2**).
- Pull off connecting cable (see **Fig**. **7.4/ 3**).
- Unlock locating lugs of the fan cover (see **Fig. 7.4/ 4**) and remove fan cover in a forward direction.
- Lift fan motor out of the fan housing.

Fig. 7.4 / 1 Fan

Fig. 7.4/ 2 Fastening screws

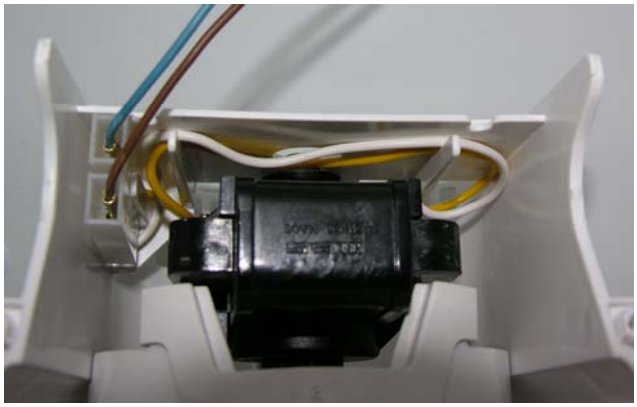


Fig. 7.4/ 3 Cable routing

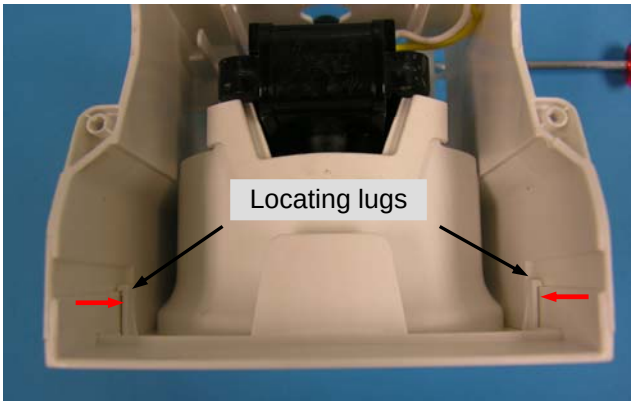


Fig. 7.4/ 4 Fan cover

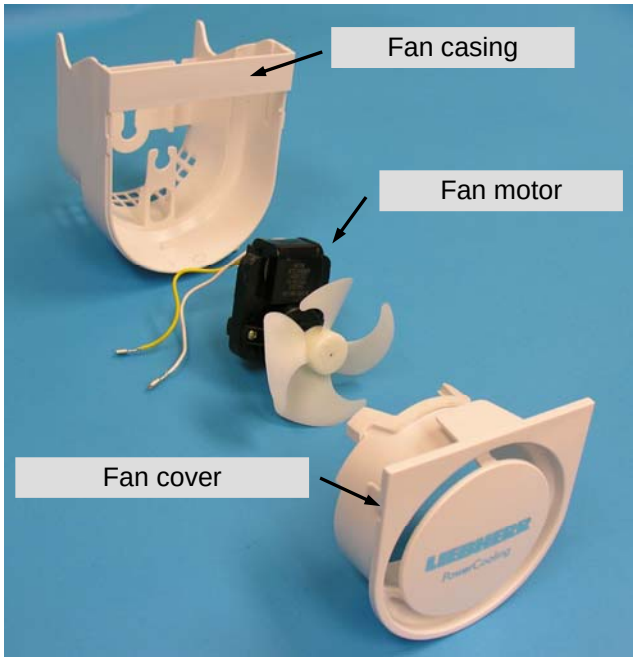


Fig. 7.4/ 5 Fan components

7.5 Integral PCB

Covers: Disengage covers at the marked points.

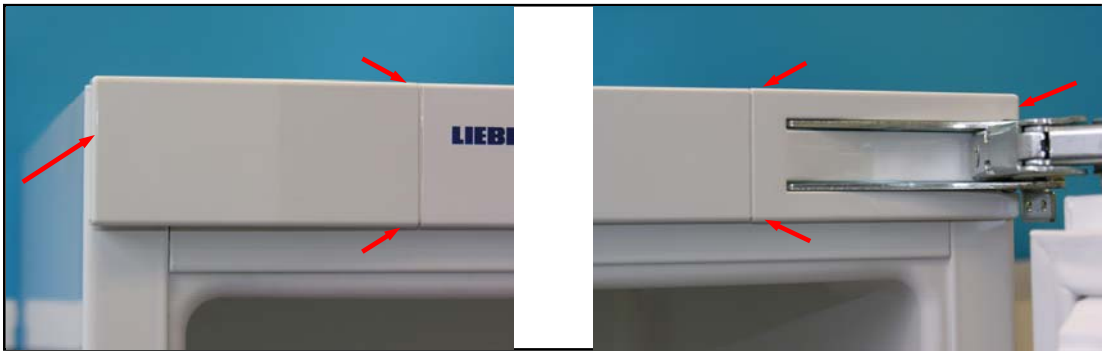


Fig. 7.5/ 1

Front panel: Unlock locating lugs at the left and right of the front casing.

Fig. 7.5/ 2

PCB carrier: Draw out front casing in a forward direction and uncover the cables.

Fig. 7.5/ 3

Group connector: Press down lock and pull off group connector.

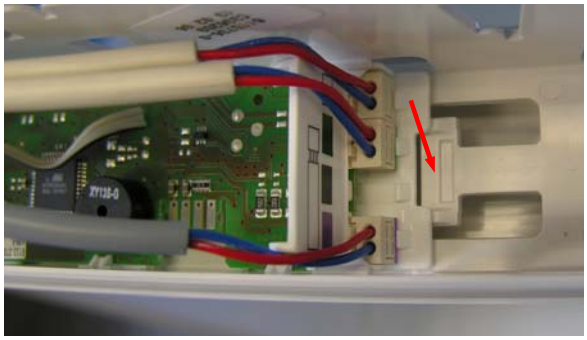


Fig. 7.5/ 4

Front panel: Release marked locks and remove front panel.

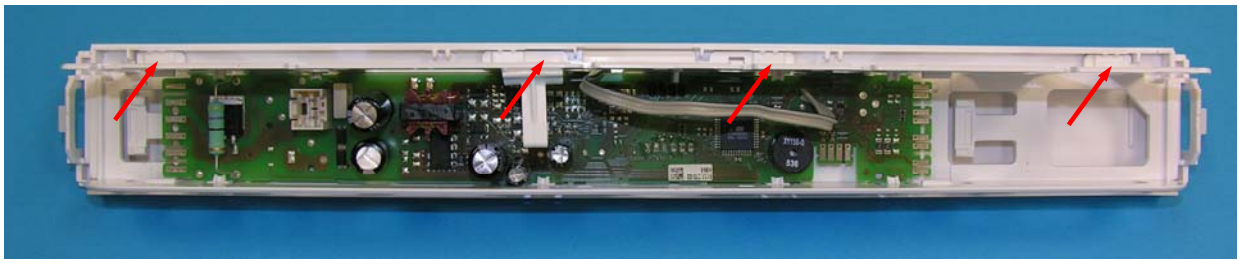


Fig. 7.5/ 5

PCB: Release reed PCB and marked locks using a screwdriver and pull PCB sideways out of the PCB carrier.

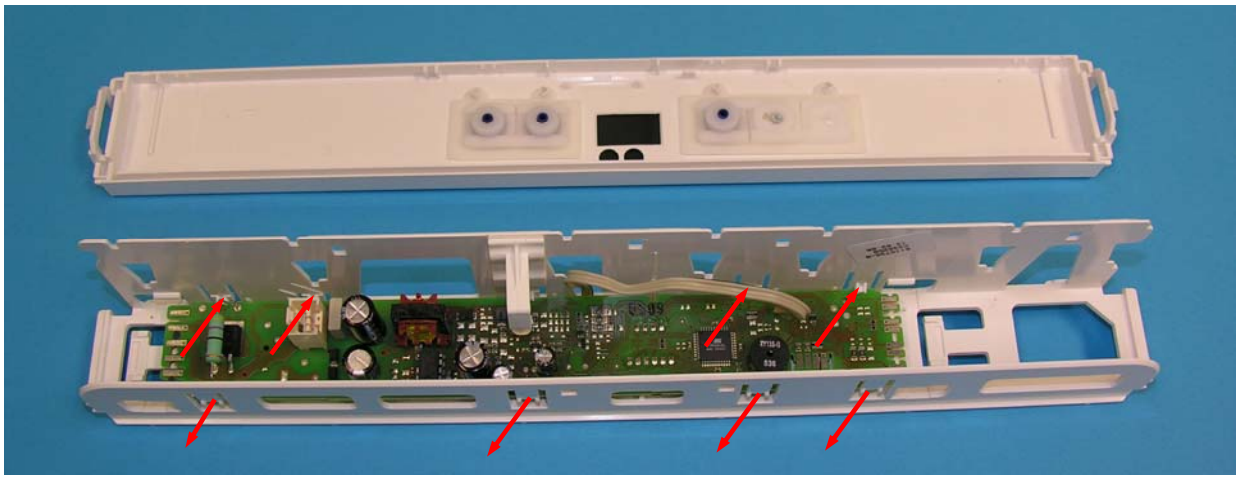


Fig. 7.5/ 6

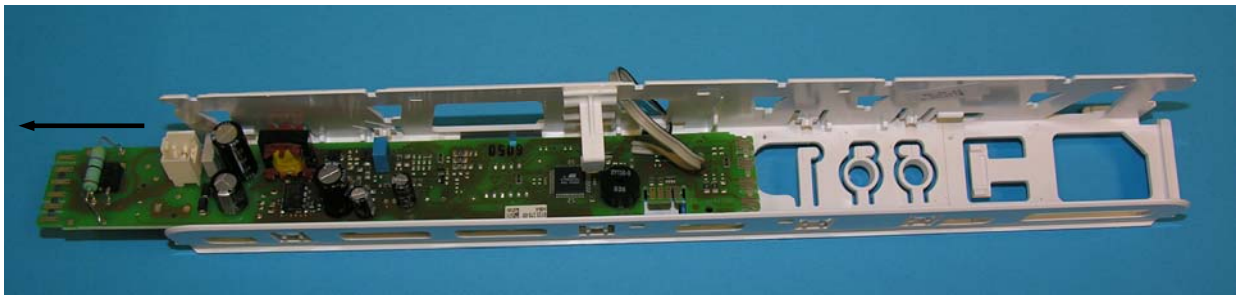


Fig. 7.5/ 7

7.6 Door magnet

Magnet holder: Press marked locating lugs together and detach magnet holder upwardly.

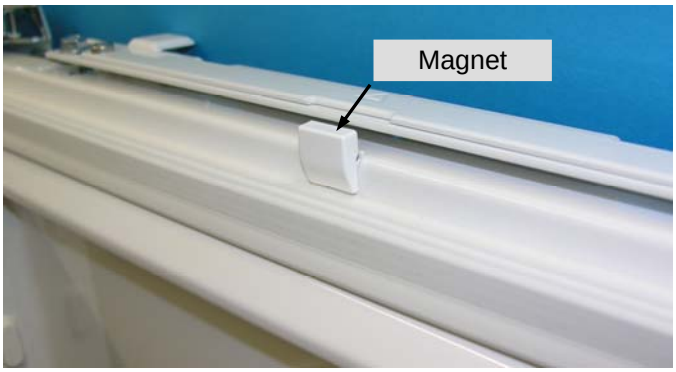


Fig. 7.6/ 1

Fig. 7.6/ 2

7.7 Support rails for sectioned glass shelves

Rails: These plastic rails support the sectioned glass shelves. The marking **R** for right and **L** for left is impressed inside. The toothed profile has to rest against the underside of the supporting ribs of the compartment liner.

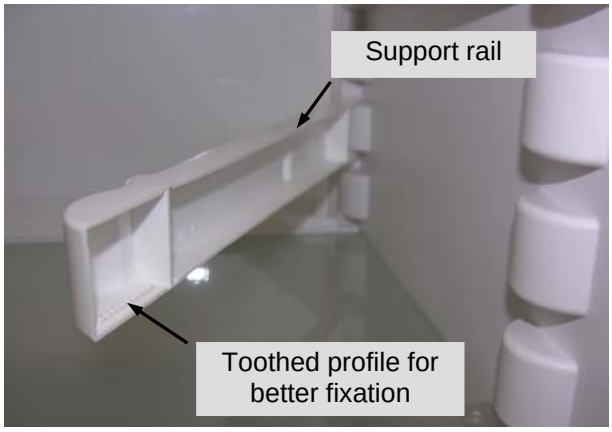


Fig. 7.7/ 1

Fig. 7.7/ 2

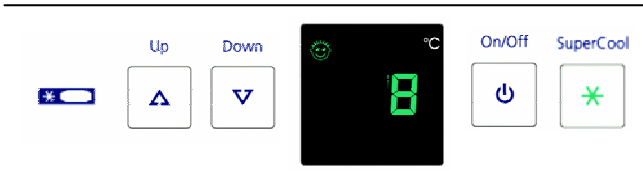
8.0 Technical data

Interior light:	Wattage: Voltage:	3 watts 230 volts
Fan: (Only IKP 2850)	Wattage: Voltage: Speed:	8.5 watts 230 volts 1700 rpm.
Sensor values:	Air and evaporator sensor	

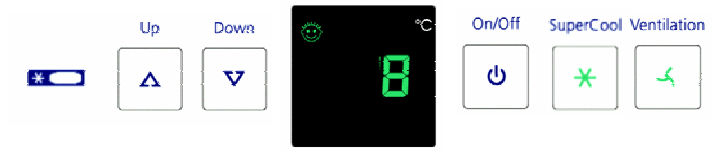
Temperature °C	Resistance value kOhm
+35	3.1
+30	3.8
+25	4.7
+20	5.9
+15	7.3
+10	9.3
+5	11.9
0	15.3
-5	19.8
-10	25.9
-15	34.1
-20	45.3
-25	60.8
-30	82.3
-35	112.8

9.0 Service menu

The service menu may be used only by customer service technicians.



IKP 2850 with fan



9.1 Demo mode "d0"

- Press SuperCool and On/Off simultaneously for 3 seconds.
- "d1" or "d0", the SuperCool LED flash.
- **d1** = demo mode is deactivated. To activate the demo mode, press SuperCool.
- **d0** = demo mode is activated. To deactivate the demo mode, press SuperCool.
- If no change is required, SuperCool must not be pressed, but On/Off.
- When the demo mode is active, compressor and fans are not activated.

Attention: The demo mode **cannot** be deactivated by power OFF/ON.
This is possible only via the service menu.

9.2 Service mode "L"

- Press SuperCool and On/Off simultaneously for 3 seconds.
- "d1" or "d0", the SuperCool LED flash.
- Press "Up" once.
- Press SuperCool, you are now in the service mode.
- "rd" flashes.
- Open and close door.
- All segments and LEDs are lit.
- Press all the buttons. Every press of a button is confirmed by a signal tone.
- 2 seconds signal tone. Control panel test concluded - load test active.
- Display "L0".
- All the loads can be individually addressed using "Up" or "Down".
  - **L0:** No load addressed
  - **L2:** Compressor
  - **L5:** LED interior light
  - **L7:** Fan (Only IKP 2850)
- **End with On/Off.**

9.3 Sensor test (temperature display) and door contact test "E"

- Press SuperCool and On/Off simultaneously for 3 seconds.
- "d1" or "d0", the SuperCool LED flash.
- Press "Up" twice. "E" flashes.
- Press SuperCool.
- The appliance is in sensor test mode and operates in the service mode.
  All the sensors and their current temperature values can be displayed with "Up" and "Down".
  - **E1:** Refrigerator compartment air sensor
  - **E2:** Evaporator sensor for refrigerator compartment
  - **E9:** Door contact (0= door closed, 1 = door open)
- **End by pressing On/Off twice.**

10.0 Table of error codes

Error code	Defective component	Emergency operation
F1	Air sensor	**Without 4-star freezer compartment** 10 min. ON, 40 min. OFF **With 4-star freezer compartment** 20 min. ON, 40 min. OFF
F2	Evaporator sensor	**Without 4-star freezer compartment** 10 min. ON, 40 min. OFF **With 4-star freezer compartment** 20 min. ON, 40 min. OFF
FA, FC, Fd, FP	Only for factory testing.	
F6, F7, F8, F9, SE	Only for factory testing.	-

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